

Project Documentation

Insight stream

- **Introduction**

- **Project Title:** Insight stream: Navigate the News Landscape

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- **Project Overview**

- **Purpose:** insight stream is a data-driven analytics platform that helps organization capture process band visualize insights from multiple data sources in real- time. it simplifies complex data handling enabling smarter decision-making through interactive dashboards and reports.

- **Features:**

Real-time data collection and integration

Customizable dashboards and visualizations

Advanced analytics and reporting

User authentication and access control

Responsive and intuitive user interface

- **Architecture**

Frontend: React.js, Tailwind CSS, Material UI

Backend: Node.js, Express.js (REST APIs)

Database: MongoDB (stores user profiles, datasets, reports, insights)

- **Setup Instructions**

Prerequisites:

Node.js

MongoDB

Installations:

Git

MongoDB Compass / VS Code

Clone the repository git clone

Install client dependencies cd

client nap install

Install server dependencies cd

../server nap install

- **Folder Structure**

SB-Works/

| -- client/ # React frontend

|

components/

libs/

```
    __page
  s/
|__server/          # Node.js backend
|__routes/
|__models/
|__controllers/
```

- **Running the Application**

Frontend:

nap start

Backend:

nap run dev

API Documentation:

Manual testing using Postman

Tools: Postman, Chrome Dev Tools

- **Access:** Visit <http://localhost:3000>
- **API Documentation**

User:

POST /Api/user/register

POST /Api/user/login

Data Stream:

POST /Api/data/upload

GET /Api/data/view

Insights:

GET /Api/insights/report

GET /Api/insights/dashboard

- **Authentication**

JWT-based secure login system

Role-based access control for different user levels

Middleware for route protection

- **User Interface**

Pages:

Login/Register

Dashboard (real-time insights)

Data Upload Page

Reports & Analytics Page

Profile & Settings

- **Known Issues**

Performance may degrade with very large datasets

Limited offline support

- **Future Enhancements**

Integration with third-party APIs (Google Analytics, Salesforce, etc.)

Machine Learning-based predictive insights

Push notifications for critical updates

Export options (PDF, Excel, CSV)